

IN THE CLAIMS

Please amend the claims as follows:

1. (original) A circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized in that the switching transformer (2) comprises a second control loop (80).
2. (original) A circuit as claimed in claim 1, characterized in that the control loop (80) comprises a third inner control loop (81).
3. (original) A circuit as claimed in claim 2, characterized in that the third inner control loop (81) comprises a computer circuit (83).
4. (original) A circuit as claimed in claim 3, characterized in that the computer circuit (83) is controlled by a commutation signal.

5. (original) A circuit as claimed in claim 2, characterized in that the third inner control loop (81) comprises a memory (85).

6. (original) A circuit as claimed in claim 1, characterized in that the second control loop (80) comprises an integrating controller (82).

7. (original) A circuit as claimed in claim 1, characterized in that the second control loop (80) comprises a measuring filter (5).

8. (original) A measuring filter (5) for a circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27), characterized in that the measuring filter (5) comprises two sample-and-hold stages (53, 56).

9. (original) A measuring filter (5) as claimed in claim 8, characterized in that the measuring filter (5) comprises an adder (61).

10. (original) A measuring filter (5) as claimed in claim 8, characterized in that the measuring filter (5) is controlled by a clock signal (90).

11. (original) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps:

- values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,
- the measured operational data (125, 128, 131) is compared with calculated operational data,
- parameters necessary for calculation are adjusted,
- a duty factor of a supply current is selected in dependence on the adjusted parameters.

12. (original) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and

setting a desired power, characterized by the following method steps:

- values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,
- the measured operational data (125, 128, 131) is compared with calculated operational data,
- parameters necessary for calculation are adjusted,
- a frequency of an alternating voltage or an alternating current is selected in dependence on the adjusted parameters.

13. (original) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps:

- values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,
- the measured operational data (125, 128, 131) is compared with calculated operational data,
- parameters necessary for calculation are adjusted,

- a valve of a supply current is selected in dependence on the adjusted parameters.

14. (currently amended) A method as claimed in ~~any one of claims 11 to 13~~ claim 11, characterized in that initially set parameters are parameters of a new lamp (3).

15. (currently amended) A method as claimed in ~~any one of claims 11 to 14~~ claim 11, characterized in that the parameters are storable in a memory (85).

16. (currently amended) A method as claimed in ~~any one of claims 11 to 15~~ claim 11, characterized in that in steady-state operation the parameters inside the memory (85) are exactly those of the connected lamp (3).

17. (original) A circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized in that the switching transformer (2) comprises an inner control loop (81).

18. (currently amended) A data and video projector having a circuit as claimed in ~~any one of claims 1 to 7 or 17~~claim 1.

19. (currently amended) A data and video projector having a circuit for implementing a method as claimed in ~~any one of claims 11 to 16~~claim 11.